

# NASA TECH BRIEF



NASA Tech Briefs are issued to summarize specific innovations derived from the U.S. space program, to encourage their commercial application. Copies are available to the public at 15 cents each from the Clearinghouse for Federal Scientific and Technical Information, Springfield, Virginia 22151.

## Improved System for Documenting Measurement Data

The major portion of measurement-systems documentation is by IBM cards—as many as six different cards for one parameter. Most parameters require four or more cards. One of these is the basic system data card containing information essential to measurement system analysis and test data reduction. The remaining cards contain system element and patching information, much of it repeated from card to card. These cards are used to prepare recorder lists—a different card for each list. Patching information appears on two, three, or four cards and lists. System modification usually requires changes to all cards with one line of keypunch data input per card. Any system analysis for modification or trouble-shooting requires reference to one or more lists of patching data plus lists or drawings of the patchboards involved.

A new method for documentation, which has been developed, reduces each system record to the basic system data card, one system recorder card, and a form fill-in type system diagram. For expedience in listing operations, a duplicate system recorder card is made for each recorder in a system, and separate card deck sections are maintained for each list to be printed. All recorder data cards are of identical format, requiring only one line of keypunch data input to prepare all recorder listing cards for a system. The

listing program selects and arranges data as required for the five different lists printed from the complete deck. Or, any deck section may be printed alone.

Patching and system element information is recorded on one of several printed forms. Each form contains the elements to build two or more types of systems by insertion of connecting lines and numerical identification of elements used. The graphic presentation facilitates system design, analysis, and trouble-shooting.

### Note:

Documentation is available from:  
Clearinghouse for Scientific  
and Technical Information  
Springfield, Virginia 22151  
Price \$3.00  
Reference: TSP69-10513

### Patent status:

No patent action is contemplated by NASA.

Source: R. H. Peterson of  
North American Rockwell Corp.  
under contract to  
Marshall Space Flight Center  
(MFS-18269)

Category 01